

Copyright is owned by the Author of the thesis. Permission is given for a copy to be downloaded by an individual for the purpose of research and private study only. The thesis may not be reproduced elsewhere without the permission of the Author.

MASSEY UNIVERSITY  
DEPARTMENT OF PSYCHOLOGY

**TITLE**

A STUDY OF THE EFFECT OF HYPNOTIC SUSCEPTIBILITY ON  
SENIOR SECONDARY SCHOOL STUDENTS TAUGHT BY REGULAR  
SUBJECT INSTRUCTION OR BY AN ACCELERATED LEARNING  
METHOD.

A thesis presented in partial fulfilment of the requirements  
for the degree of Master of Arts in Psychology at Massey  
University.

FRANCIS COLIN COATES

1993

### ACKNOWLEDGEMENTS

Many thanks are due to the students who participated in this research study. Their co-operation made the study possible.

I am especially grateful to my supervisor, Dr Dave Clarke for assisting me throughout with candid comment, wise guidance and unfailing support.

I am also appreciative for the assistance in reading, comment and advice from Miss Julie Mattocks and Mr. David Page.

Finally I am very grateful to my wife, Joy, and my family for providing encouragement and support throughout the research and the long hours of thesis preparation.

### ABSTRACT

In this study a Sixth Form Certificate class in Human Relations was taught by accelerated learning methods through the whole academic year. All students in this class were matched closely with students not involved in the Human Relations area. Accelerated Learning approaches are based on the original work of a Russian Psychiatrist who called his early work Suggestopedia. Lozanov believed that the effective use of suggestion was the key to speeding the acquisition of knowledge and improving its retention. Relaxation skills are a prime feature of accelerated learning when students receive passive instruction while relaxing to baroque music. The study measured the students on both academic performance and measures, pre and post treatment, of anxiety and self-esteem. At the end of the year all students were assessed on level of susceptibility to hypnotic suggestion. A division was made into those regarded as high or low in susceptibility to suggestion, and the results of testing examined in the light of level of responsiveness to suggestion. In both the treatment and non-treatment classes students rated as high for suggestibility performed better than students rated low for responsiveness to suggestion, however the high-suggestible students in the Accelerated Learning class performed significantly better than all other subjects in the study. It was possible to conclude that the process of instruction via accelerated learning techniques significantly raises the academic performance and self esteem levels, while decreasing both trait and state anxiety levels. The implications of these results for teachers and for future research on the use of suggestion in the classroom is also discussed.

**TABLE OF CONTENTS**

	Page No.
CHAPTER ONE - INTRODUCTION.....	1
CHAPTER TWO - REVIEW OF THE LITERATURE.....	8
Traditional learning .....	12
Educational alternatives.....	13
The new brain.....	13
Learning style.....	15
Music.....	16
Implementing the new understandings.....	16
Suggestion in education.....	18
Suggestion and hypnosis.....	20
Barriers to suggestion within education.....	25
Other non-traditional approaches.....	26
Suggestopedia.....	27
Implementing Suggestopedia.....	28
Whole brain learning.....	30
Individual learning style.....	33
Accelerated learning.....	37
Studies of accelerated learning.....	37
The accelerated classroom.....	40
Statement of hypotheses.....	41
CHAPTER THREE- METHOD.....	42
Research design.....	42
Instruments.....	43
Subjects.....	46
Procedure.....	47

Testing.....	48
CHAPTER FOUR- RESULTS.....	50
CHAPTER FIVE- DISCUSSION.....	58
Anxiety.....	59
Self-esteem.....	60
English.....	60
Mathematics.....	61
General discussion.....	61
Suggestion.....	63
REFERENCES.....	65

**LIST OF TABLES**

	Page No.
Table 1	
Mean percentage anxiety levels for each experimental group. . . . .	50
Table 2	
Mean percentage pre and post-treatment levels for each experimental group in self-esteem, English and mathematics. . . . .	55

**LIST OF FIGURES**

	Page No.
Figure 1	Combination of perceiving and processing dimensions. . . . . 35
Figure 2	Mean pre and post-treatment trait anxiety scores for the accelerated and matched sample groups. . . . . 51
Figure 3	Mean pre and post-treatment state anxiety scores for the accelerated and matched sample groups. . . . . 52
Figure 4	Mean pre and post-treatment self-esteem scores for the accelerated and matched sample groups. . . . . 53
Figure 5	Mean pre and post-treatment English scores for the accelerated and matched sample groups. . . . . 54
Figure 6	Mean pre and post-treatment mathematics scores for the accelerated and matched sample groups. . . . . 56



## CHAPTER ONE

### INTRODUCTION

The present study examines the question of academic gain obtained through regular experience of a relaxed state in which key words and phrases from lesson material were spoken and suggestion made regarding recall. The review of the literature outlines differences between suggestion, suggestibility and learning and examines recent research relating to how suggestion delivered in the relaxed state acts to affect learning.

For the purpose of this study two broad areas were considered in relation to suggestion. Firstly, a definition of suggestion that enables a differentiation to be made between suggestibility and the ability to utilise suggestion in the relaxed/trance state, with particular emphasis on the issues that led to this study. Secondly a review of the literature relating to the relaxed/meditative/trance state and the acceptance of suggestion while in that state. In this case emphasis was placed upon improvements in academic performance which related to individual levels of hypnotic susceptibility.

From the point of view of the onlooker, no aspect of hypnosis is more striking than the heightened suggestibility of a hypnotised subject. In fact this characteristic is so evident that hypnosis is often defined as a state of hyper-suggestibility (Bowers, 1976)

It is unfortunate that an over emphasis on heightened suggestibility has become so attached to hypnosis when in fact individuals vary widely in their susceptibility to accepting suggestion in the normal, waking state.

Precisely because responsiveness to suggestion is such an overt visible outcome of hypnosis, it is sometimes emphasised to the exclusion of another aspect of hypnosis less visible to the onlooker, the so called hypnotic

state of trance. Indeed, one possible consequence of identifying hypnosis with hyper-suggestibility involves eliminating the idea of trance altogether. (Bowers, 1976, p.85)

It is a common understanding in everyday life that people differ in their responsiveness to suggestion (Bowers, 1976; Hartman, 1980; Hartland, 1971; Olness and Gardner, 1988; Edelstein, 1981). Some people's choices made while shopping, show effects of waking suggestion via television, print or radio promotion. It is common to equate suggestibility with being gullible, persuadable or compliant.

We have become aware of the encroachment of subliminal advertising in the media and parents guard impressionable children from the suggestive dangers of certain types of television programmes. Suggestion is a potent force and has always been present in the academic environment. Suggestion has long been an educational aid and is frequently used, whether consciously or unconsciously, by educators. Everyone uses suggestion to some extent in everyday life.

Evidence is accumulating that hypnotic induction and hypnotic states are not at all unique. Everyone has experienced being entranced to the extent that factors other than the entrancing event seem to fade away. This is commonly found in reading, watching television, attending to a task and being creative. We seem to live a large part of our life in trance-like states. The ability to become entranced is not a mysterious event sought out by some but is a very natural, commonly occurring state which humans use effectively.

Bandler and Grinder (1982) the developers of Neuro Linguistic Programming (NLP) observed that quite frequently when working with clients that the clients (of their own accord) would go 'inwards' to access their own 'trance states' without any formal induction. Their understanding was that all clients possessed the resources they needed to bring about the changes they sought and that the self-entrancement

that occurred gave them access to those resources (Lankton, 1980).

NLP has led to greater understanding of how an individual uses his or her brain and how s/he processes sensory based information. Among the concepts developed was the understanding that learning to do something well, much better or more efficiently was most effectively achieved by modelling the skills already present in an excellent performer. NLP provided a technique for making explicit the precise actions necessary for achievement.

O'Connor and Seymour (1990) implied that it was a strange idea that finding out explicitly how you do something would interfere with your doing it and that somehow ignorance was necessary to excellence. Regarding education they stated:

Teaching involves gaining rapport and pacing and leading the student into the best strategies or ways of using the body and mind to make sense of the information. Many school subjects are anchored to boredom and unhappiness and so learning becomes difficult. Why is education often so painful and time-consuming ? Most of the content of a child's full-time education could be learned in less than half their time at school if the children were motivated and given good learning strategies.

Learning to learn is the most important skill of education and needs to be taught from the infant school onwards. The education system concentrates mostly on what is taught, the curriculum, and omits the learning process. This has two consequences. First, many students have difficulty picking up the information. Secondly, even if they do learn it, it has little meaning for them because it has been taken out of context. (p.181)

Without a learning strategy, students may become information parrots, forever dependent on others for information. They are information enabled but learning disabled.

Research into education and learning has emphasised an attempt to understand the process of learning in order to construct the most appropriate learning climate. Findings from brain specialisation and hemispheric functioning appear to have much to contribute to an understanding of the learning process. In recent years there has been an increasing interest in right brain function with a belief that most people are left brain dominant. (Benson, 1988; Sperry, 1973; Zdenak, 1983; O'Boyle, 1986; Gazzaniga, 1978.)

The notion of two largely lateralised modes of learning suggests that teaching by either lecturing or imitation affects primarily one or the other hemisphere. Bogen (1977) commented that learning of almost any idea was likely to be better if both methods were used. This means that teaching solely by imitation would be as open to the charge of one-sidedness as would a curriculum of solely lecture classes.

Learning is effective only in so far as it affects the working of the brain. There is concern that a school curriculum restricted to the three R's of reading, writing and arithmetic would affect only one hemisphere leaving half of an individual's high-level potential untutored. There must however, be concern that a greatly increased interest in right brain teaching could lead to a breaking up of educational process where every novel approach became acceptable. However, in the case of right-brain involvement in learning, there does seem to be good evidence to attempt to significantly enhance this through attention to the way we teach and instruct.

The main theme to emerge is that there appear to be modes of thinking, verbal and non-verbal, represented separately in the left and right hemispheres respectively, and that our educational system as well as science in general, tends to neglect the non-verbal form of intellect. What it comes down to is that modern society discriminates against the right hemisphere. The amount of formal training given to the right hemisphere in our public

schools has been almost negligible compared to that devoted to the specialities of the left hemisphere. (Sperry, 1973, p.18).

Learning style is directly linked to how the individual processes information and to the resulting pattern of that processing. (In NLP terms s/he would likely use a preferred sensory mode). In terms of hemispheric functioning, students who predominantly favour right hemisphere processing may belong to cultural groups which have a significant difficulty in the New Zealand schooling system. A National association of American school principals issued an article in 1983 which commented on learning styles and defined learning style as, " That consistent pattern of behaviour and performance by which an individual approaches educational experiences. It is the composite of characteristic cognitive, affective and physiological behaviours that serve as relatively stable indicators of how a learner learns, perceives, interacts with and responds to the learning environment." (Cited in, Keefe (1983), Learning Styles Newsletter, 4. )

All children do not learn the same way. They rely on different sensory modes to help them. Some depend heavily on their sense of sight, others on their sense of hearing and still others on their sense of touch. The mode they use influences their classroom behaviour and achievement. An individual's modality strength could best be described as the sensory channel through which information is processed most efficiently.

The concept of modality strength is not new. Maria Montessori (1936) practiced it to some extent. The difference between early approaches and contemporary practice resides in the fact that today's modality-based instruction can be applied in every classroom. In addition, there are now means of assessing modality strengths. There is no longer a need to rely on observation alone as Montessori did. Existing instruments include the Dunn's Learning Style Inventory

(Dunn, 1985), the Swassing-Barbe Modality Index (Swassing & Barbe, 1985) and Vitale's Modality and Dominance Screen (Vitale, 1982).

In 1983 Howard Gardner, Professor of Psychology at Harvard University, published 'Frames of Mind.' In it he argued that what we normally describe as 'intelligence' was an over simplification. He suggested that there were many types of intelligence, or possibly, many types of mental ability. Gardner put forward seven types of intelligence; Linguistic, Mathematical/Logical, Visual/Spatial, Musical/Auditory, Kinesthetic, inter-personal and, intra-personal.

The important point is that Western education values and teaches primarily to, the first two intelligences, that is, the Linguistic and the Mathematical/Logical. Other mental abilities are less understood, less valued and given much less attention in the teaching process. As a result, students whose learning styles are not ideally suited by a logical or linguistic approach may come to be considered as 'less intelligent' or labelled, 'learning disabled,' a label from which many young children never recover.

Over the years educators have explored the effects of many variables on the learning process. Some of the student variables are I.Q., maturity, self-confidence and socioeconomic background. Empathy and communication skills are considered to be two important variables for teachers.

The Bulgarian psychiatrist, Georgi Lozanov, worked extensively to enhance the learning process. He has presented impressive data to support his belief that positive expectancy and motivation are the main causes of academic success. He believed that one may teach in relatively unmapped ways to both increase motivation and create the positive, expectant atmosphere that results in significantly faster rates of learning. In Lozanov's methodology, the emphasis is on whole-brain learning with teaching strategies being directed towards both right and left

hemispheres

Lozanov called his procedural approach to learning, 'Suggestopedia.' This name while descriptive, was difficult for Western education. Consequently, those using his principles and developing the approach have renamed the method, 'Accelerated Learning.' The term Suggestopedia carried the implication that suggestion was at the core of the method. Implicit in Suggestopedia/Accelerated Learning is the awareness and understanding that students become whatever is asked of them. Lozanov emphasised the important role of suggestion and indicated that teachers needed to be aware of its explicit and implicit use.

Lozanov has assembled a technology of instruction based upon the idea that the proper use of the power of suggestion is in fact the underlying principle of effective communication and that through suggestion a teacher may exert maximum impact upon student attitudes towards classroom activity (motivation) and upon his/her beliefs about their own ability to learn (expectancy). (Prichard & Taylor, 1980, p.11).

The question that arises is, "How does one teach in order to engage all the largely unconscious aspects within students such as self-expectation, images of the self and internalised expectations of others, and begin to develop an expanded learning environment? How too can one utilise understandings of the importance of individual learning style and multiple intelligences in the instructional arena?"

Lozanov's work and that of accelerated learning practitioners has provided a conceptual breakthrough, viewing interpersonal communication in terms of its suggestive impact. This study examines Suggestopedia and Accelerated Learning together with recent understandings in instruction and learning. It attempts to determine if the level of individual susceptibility to suggestion is a major factor in academic gain.